UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/852,114	05/09/2001	Jacobus Haarsten	040071-283	5015

7590	08/25/2004	EXAMINER

EXAMINER
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ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/852,114	HAARSTEN, JACOBUS
	Examiner	Art Unit	
	David R Vincent	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-41_ is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) _1-6,8-15,17-27,29-36 and 38-41_ is/are rejected.
7)☒ Claim(s) _7,16,28 and 37_ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some *   c)☐ None of:
        1.☐ Certified copies of the priority documents have been received.
        2.☐ Certified copies of the priority documents have been received in Application No. _____ .
        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _2/1/02, 3/28/02_.
4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____ .

Claim Objections

1.   Claim 2 is objected to because of the following

informalities: Claim 2, specifies a segment including a

retransmitted segment and most likely the applicant meant to

indicate that the segment itself can be a retransmitted segment.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35

U.S.C. 112:

> The specification shall conclude with one or more claims particularly
> pointing out and distinctly claiming the subject matter which the applicant
> regards as his invention.

Where applicant acts as his or her own lexicographer to

specifically define a term of a claim contrary to its ordinary

meaning, the written description must clearly redefine the claim

term and set forth the uncommon definition so as to put one

reasonably skilled in the art on notice that the applicant

intended to so redefine that claim term. *Process Control Corp.*

v. *HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033

(Fed. Cir. 1999). The terms "synchronous, isochronous, and

asynchronous" in claims 11-13, and 32-34 are used by the claim

to mean: synchronous is defined as not allowing for any delay,

somehow equated to lifetime in the claims; asynchronous is

defined as meaning "not time-bounded", and isochronous is

defined as being "in between" the synchronous and asynchronous.

The term synchronous is a term of art which implies a

receiver and transmitter are using the same clock or are

synchronized together by using a flag/preamble and postamble bit

pattern (see e.g., Stallings, Data and Computer text book: pg.

143; or Schuster US 6,360,271: Figs. 1-2; col. 7, lines 14-32).

The term isochronous is a term of art that implies real

time or traffic that experiences less than 200ms of delay (see

Black" ATM text book: pg. 126; or Newton's Telecom Dictionary:

pg. 640).

The term asynchronous is a term of art which means the

receiver and transmitter are not synchronized to each other

and/or timing is not maintained (see e.g., Black: pg. 37).

The terms are indefinite because the specification does not

clearly redefine the term.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which

forms the basis for all obviousness rejections set forth in this

Office action:

> (a) A patent may not be obtained though the invention is not identically
> disclosed or described as set forth in section 102 of this title, if the
> differences between the subject matter sought to be patented and the prior
> art are such that the subject matter as a whole would have been obvious at
> the time the invention was made to a person having ordinary skill in the

art to which said subject matter pertains. Patentability shall not be
negatived by the manner in which the invention was made.

Claims 1-6, 8-15, 17-27, 29-36, 38-41 are rejected under 35

U.S.C. 103(a) as being unpatentable over Bennett (US 6,345,302).

The Stevens text book, TCP/IP Illustrated is used as a

dictionary to define the inherent features of the TCP/IP scheme,

and is cited in the Bennett patent (Bennett: col. 13, lines 8-

11).

Bennett discloses a method for a plurality of messages

(sending TCP/IP messages with IP fragments inside over an ATM

network, IP over ATM, Bennett: cols. 1-20 Fig. 2B, col. 11,

lines 51-59; col. 20, lines 58-64), defining a message lifetime

(not further defined, reads on e.g. using a timeout lifetime in

the TCP packets/segments, Stevens: pg. 149, line 23; or using

the Time To Live/TTL in IP packets/datagrams; Bennett: 115, Fig.

2B and respective disclosure, e.g., col. 12, lines 7-20),

assigning a segment number to each segment (fragment ID/offset

value; and respective disclosure; Bennett: col. 13, lines 33-37;

Stevens: pg. 149, lines 8-9), transmitting at least one segment

(fragment) with a message number (the same IP ID is in each IP

fragment; Stevens: pg. 149, lines 4-5), until a lifetime expires

(messages can timeout as per TCP or the TTL can expire), segment

can include a retransmitted segment (IP fragments get

retransmitted when they have received in error; there is a 16

bit header check sum in the IP fragment; respective disclosure;

Bennett: cols. 1-20, especially col. 7, lines 19-67; col. 6,

lines 28-61), using an automatic retransmission query based on

the assigned number (if the fragment check sum or offset field

is damaged in transmission, the fragment will be resent,

Bennett: cols. 1-20, especially col. 7, lines 19-67; col. 6,

lines 28-61), using stop and wait, go back N or selective repeat

(TCP sliding window uses a stop and wait scheme and IP resends

fragments; the transmitter who fragmented the IP packet keeps

the entire IP packet stored until all fragments have been

received, error checked and put back in order at the receiver),

using parity bits (16 bit header check sum in the IP fragment;

e.g., Bennett: cols. 1-20, especially col. 7, lines 19-67; col.

6, lines 28-61; Stevens: TCP 16-bit checksum field), resetting

the sequence (the offset values get reset and start from zero

when there is a retransmission or new packet being fragmented),

discarding all segments when time exceeds lifetime (individual

fragments are not resent when the TTL expires; all fragments are

resent, Stevens: pg. 149, lines 21-27), comparing message

numbers (checking the 16 bit IP ID of the fragments; e.g.,

Bennett: col. 13, lines 11-52; col. 15, lines 24-61), grouping

and reordering when message number (IP ID) does not match (IP

datagrams and fragments can be received out of order and if the

message umbers do not match then the fragment belongs to a

different packet; reordering the connectionless datagrams is

done at the receiver; e.g. Bennett: col. 11, line 66-col. 12,

line 1-6 or Stevens: pg. 149, lines 20-21), packet comprising a

payload and header (IP fragment is an IP packet with the offset

and flag fields being used, Bennett: Figs. 5-8), using a binary

number of at least two bits (16 bit IP ID), message number is

assigned to the header (IP ID is in the header). Also one of

ordinary skill would understand that the ATM cells (fixed length

packets) are themselves segments of messages (TCP, IP, or

fragments) and that ATM uses a payload type indicator (PTI) so

that when a segment (ATM cell) is dropped due to an error, all

remaining segments (ATM cells) of that (TCP, IP, or fragment)

are discarded using a PTI=010 and an EFCI=1. Regarding claims 9,

18, 30, and 39 the phrase when the current message number does

not match the preceding message number reads on e.g., receiving

a new set of IP fragments with a new IP ID number. However, the

applied art fails to particularly call for the details of which

numbers are picked for the messages (IP packets).

It is obvious if not inherent that the IP packets will

receive sequential numbering when generated. This will allow

for more efficient use of the available numbers.

Claim Rejections - 35 USC § 103

Claims 1-6, 8-15, 17-27, 29-36, 38-41 are rejected under 35

U.S.C. 103(a) as being unpatentable over Alkhatib (US

6,532,217). The Stevens text book, TCP/IP Illustrated is used

as a dictionary to define the inherent features of the TCP/IP

scheme.

Alkhatib discloses a method for a plurality of messages

(sending TCP/IP messages with IP fragments inside; Alkhatib:

col. 6), defining a message lifetime (not further defined, reads

on e.g. using a timeout lifetime in the TCP packets/segments,

Stevens: pg. 149, line 23; or using the Time To Live/TTL in IP

packets/datagrams; Alkhatib: 140, Fig. 5; col. 6, lines 30-35),

assigning a segment number to each segment (fragment ID/offset

value; Alkhatib: 138, Fig. 5 and respective disclosure; Stevens:

pg. 149, lines 8-9), transmitting at least one segment

(fragment) with a message number (the same IP ID is in each IP

fragment; Stevens: pg. 149, lines 4-5), until a lifetime expires

(messages can timeout as per TCP or the TTL can expire;

Alkhatib: col. 6, lines 30-35), segment can include a

retransmitted segment (IP fragments get retransmitted when they

have received in error; there is a 16 bit header check sum in

the IP fragment; Alkhatib: 144, Fig. 5 and respective

disclosure), using an automatic retransmission query based on

the assigned number (if the fragment check sum or offset field

is damaged in transmission, the fragment will be resent), using

stop and wait, go back N or selective repeat (TCP sliding window

uses a stop and wait scheme and IP resends fragments; the

transmitter who fragmented the IP packet keeps the entire IP

packet stored until all fragments have been received, error

checked and put back in order at the receiver; e.g., Alkhatib:

col. 6, lines 30-35), using parity bits (16 bit header check sum

in the IP fragment; e.g., Alkhatib: col. 6, lines 40-44;

Stevens: TCP 16-bit checksum field), resetting the sequence (the

offset values get reset and start from zero when there is a

retransmission or new packet being fragmented), discarding all

segments when time exceeds lifetime (individual fragments are

not resent when the TTL expires; all fragments are resent,

Stevens: pg. 149, lines 21-27), comparing message numbers

(checking the 16 bit IP ID of the fragments; e.g., Alkhatib:

col. 6, lines 19-21), grouping and reordering when message

number (IP ID) does not match (IP datagrams and fragments can be

received out of order and if the message umbers do not match

then the fragment belongs to a different packet; reordering the

connectionless datagrams is done at the receiver; e.g. Stevens:

pg. 149, lines 20-21), packet comprising a payload and header

(IP fragment is an IP packet with the offset and flag fields

being used), using a binary number of at least two bits (16 bit

IP ID), message number is assigned to the header (IP ID is in

the header). However, the applied art fails to particularly call

for the details of which numbers are picked for the messages (IP

packets).

It is obvious if not inherent that the IP packets will

receive sequential numbering when generated. This will allow

for more efficient use of the available numbers.

4.   Claims 7, 16, 28, 37 are objected to as being dependent

upon a rejected base claim, but would be allowable if rewritten

in independent form including all of the limitations of the base

claim and any intervening claims.

Any inquiry concerning this communication or earlier

communications from the examiner should be directed to David R

Vincent whose telephone number is 703 305 4957. The examiner

can normally be reached on M-TH.

If attempts to reach the examiner by telephone are

unsuccessful, the examiner's supervisor, Douglas Olms can be

reached on 703 305 4703. The fax phone number for the

organization where this application or proceeding is assigned is

703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David R Vincent
Primary Examiner
Art Unit 2661

August 21, 2004